

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (original) A method for determining the spreading factor in a code division multiple access communication system comprising:

(a) despreading with a plurality of the possible spreading factor codes, said despreading includes performing maximal-ratio-combining of despread multipaths;

(b) taking the absolute values of said despreading results of step (a); and

(c) making a spreading factor decision from said absolute values of step (b).

Claim 2 (cancelled)

(a)

Claim 3 (currently amended) The method of claim 1, wherein:

(a) said absolute values are weighted with a signal-to-noise ~~rati~~ratio estimate.

Claim 4 (currently amended) The method of any of claims 1, ~~2,~~ and 3, wherein:

(a) said absolute values for a spreading factor are accumulated.

Claim 5 (original) The method of claim 1, wherein:

(a) said making a decision of step (c) includes comparing the ratios said absolute values for differing spreading factors.

Claim 6 (original) The method of claim 1, wherein:

(a) said making a decision of step (c) includes comparing weighted linear combinations of ratios said absolute values for differing spreading factors.

Claim 7 (currently amended) A method of despreading, comprising:

- (a) despreading with a plurality of the possible spreading factor codes;
- (b) taking the absolute values of said despreading results of step (a);
- (c) making a first spreading factor decision and a second spreading factor decision from said absolute values of step (b);
- (d) when said first decision of step (c) is a first ~~or~~ spreading factor and said second decision is a second spreading factor, then despreading with both said first and second spreading factors, and when said first and second decisions ~~decision~~ of step (c) is are both equal to a third spreading factor, then despreading with said third spreading factor.

Claim 8 (original) The method of claim 7, wherein:

- (a) said despreading includes performing maximal-ratio-combining of despread multipaths.

Claim 9 (original) The method of any of claims 7 and 8, wherein:

- (a) said absolute values for a spreading factor are accumulated.

Claim 10 (original) A method of despreading, comprising:

- (a) despreading with a plurality of the possible spreading factor codes;
- (b) taking the absolute values of said despreading results of step (a);
- (c) making a spreading factor decision from said absolute values of step (b);
- (d) when said decision of step (c) is a first spreading factor, then despreading with spreading factors larger than said first spreading factor.

Claim 11 (original) The method of claim 10, wherein:

(a) said despreading includes performing maximal-ratio-combining of despread multipaths.

Claim 12 (currently amended) The method of any of claims 10 and 11 ~~and 12~~, wherein:

(a) said absolute values for a spreading factor are accumulated.

Claim 13 (original) A method of despreading, comprising:

- (a) despreading with a plurality of the possible spreading factor codes;
 - (b) taking the absolute values of said despreading results of step (a);
 - (c) making a spreading factor decision from said absolute values of step (b)
- wherein the absolute values are taken over differing time intervals for differing spreading factors.

Claim 14 (original) The method of claim 13, wherein:

(a) said despreading includes performing maximal-ratio-combining of despread multipaths.

Claim 15 (original) The method of any of claims 13 and 14, wherein:

(a) said absolute values for a spreading factor are accumulated.

Claim 16 (original) A code division multiple access communication system, comprising:

- (a) an antenna;
- (b) a demodulator coupled to said antenna;
- (c) a processor coupled to said demodulator and programmed to: (i) despread with a plurality of the possible spreading factor codes, (ii) take the absolute values of said despread results of step (i), and (iii) make a spreading factor decision from said absolute values of step (ii); and

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(d) an output coupled to said processor to output results of said programmed despreading with the spreading factor according to the decision of step (iii).